IN THE CLAIMS

Please amend the following claims to read as follows:

1. (Previously Presented) An optical disk apparatus in which an active layer of an optical disk is irradiated with a laser and the optical disk apparatus and the optical disk are maintained at substantially the same temperature, comprising:

detection means for detecting an amount of shift, in an optical disk radial direction, of an objective lens that focuses said laser on said active layer of said optical disk causing fluctuation in effective power, the effective power being the laser power at the active layer of the optical disk;

storage means for storing compensation data indicating a relationship between an amount of change in the factor causing fluctuation in effective power and an optimum emitted power corresponding to the amount of that change; and

control means for adjusting emitted power based on the compensation data and a value detected by the detection means.

2. (Previously presented) The optical disk apparatus of claim 1, further comprising:

acquisition means for acquiring, from an optical disk on which recording is to be carried out, compensation correction values for correcting the compensation data,

wherein the control means adjusts emitted power based on the detected value, the compensation data, and the compensation correction values.

3. Canceled, without prejudice.

4. Canceled, without prejudice.

5. (Previously presented) The optical disk apparatus of claim 1, wherein the compensation data is set separately for each individual optical disk apparatus.

6. (Previously presented) The optical disk apparatus of claim 2, wherein the compensation data is set separately for each individual optical disk apparatus.

7. Canceled, without prejudice.

8. Canceled, without prejudice.

9. (Previously Presented) A method for adjusting laser power in an optical disk apparatus in which an active layer of an optical disk is irradiated with a laser and the optical disk apparatus and the optical disk are maintained at substantially the same temperature, the method comprising:

a first step of acquiring and storing at storage means compensation data indicating a relationship between an amount of shift, in an optical disk radial direction, of an objective lens that focuses said laser on an active layer of said optical disk causing fluctuation in an effective laser power which is the laser power at the active layer of the optical disk, and an optimum emitted power corresponding to the amount of the change;

a second step of detecting from an optical disk on which recording is to be carried out an amount of said objective lens shift causing fluctuation in effective power and obtaining a compensation correction value for correcting the compensation data; and

a third step of detecting an amount of said objective lens shift causing fluctuation in effective power during recording and adjusting emitted power based on this detected value, the compensation data, and the compensation correction value.

10. (Previously Presented) An optical disk apparatus in which an active layer of an optical disk is irradiated with a laser, comprising:

detection means for detecting an amount of change in an objective lens shift focusing said laser onto the active layer of the optical disk, or of a servo residual error, causing fluctuations in effective laser power at the active layer of the optical disk;

storage means for storing compensation data indicating a relationship between said amount of said objective lens shift or of said servo residual error and an optimum emitted laser power corresponding to the amount of said change; and

control means for adjusting emitted laser power based on said compensation data and a value respectively detected by the detection means.

11. (Currently Amended) An optical disk apparatus in which an active layer of an optical disk is irradiated with a laser, comprising:

detection means for detecting an amount of change in a factor causing fluctuation in effective power, the effective power being the laser power at the active layer of the optical disk;

storage means for storing compensation data indicating a relationship between an amount of change in the factor causing fluctuation in effective power and an optimum emitted power corresponding to the amount of the change, the compensation data being obtained by changing a factor causing fluctuation in effective power with respect to an optical disk for testing, and sequentially changing emitted power of the laser emitted from a laser source according to each factor causing fluctuation; and

control means for adjusting emitted power based on the compensation data and a value detected by the detection means with respect to an optical disk to which data is recorded or from which data is reproduced , and

acquisition means for acquiring the compensation data by changing a factor causing fluctuation in effective power with respect to the optical disk for testing, and sequentially changing the emitted power of the laser emitted from the laser source according to each change of the factor causing fluctuation,

wherein the acquisition means further acquires a compensation correction value for correcting the compensation data from the optical disk to which data is recorded or from which data is reproduced, and the control means adjusts, at the time of recording or reproduction, emitted power based on the detection value of the detection means, the compensation data and the compensation correction value,

wherein the acquisition means obtains an optimum emitted power Pwo by sequentially changing emitted power with respect to the optical disk to which data is recorded or from which data is reproduced, and acquires as a compensation correction value the obtained optimum emitted power Pwo and an amount of change S1 in a factor causing fluctuation in effective power with respect to the optimum emitted power Pwo, and

wherein:

when the optimum emitted power Pwo acquired as a compensation correction value is referred to as Pwo ,

an optimum emitted power P1 which is obtained based on the correction data and corresponds to the amount of change S1 in a factor causing fluctuation in effective power is referred to as P1, and

an optimum emitted power P2 which is obtained based on the correction data and corresponds to the amount of change S2 in a factor causing fluctuation detected from the detection means is referred to as P2, then

the control means adjusts the emitted power P at a time of recording or reproduction so as to be Pwo x P2/P1 .

12. Canceled, without prejudice.

13. Canceled, without prejudice.

14. Canceled, without prejudice

15. Canceled, without prejudice.

16. (Currently Amended) An optical disk apparatus in which an active layer of an optical disk is irradiated with a laser, comprising:

detection means for detecting an amount of change in a factor causing fluctuation in effective power, the effective power being the laser power at the active layer of the optical disk;

storage means for storing compensation data indicating a relationship between an amount of change in the factor causing fluctuation in effective power and an optimum emitted power corresponding to the amount of the change, the compensation data being obtained by changing a factor causing fluctuation in effective power with respect to an optical disk for testing, and sequentially changing emitted power of the laser emitted from a laser source according to each factor causing fluctuation; and

control means for adjusting emitted power based on the compensation data and a value detected by the detection means with respect to an optical disk to which data is recorded or from which data is reproduced,

~~The optical disk apparatus of claim 11,~~ wherein the detection means detects an amount of shift, in an optical disk radial direction, of an objective lens that focuses a laser onto an active layer of the optical disk.

17. (Currently Amended) A method for adjusting laser power in an optical disk apparatus in which an active layer of an optical disk is irradiated with a laser, the method comprising:

a first step of acquiring and storing at a storage means compensation data indicating a relationship between an amount of a change in a factor causing fluctuation in an effective laser power which is the laser power at the active layer of the optical disk and an optimum emitted power corresponding to the amount of the change, by changing the factor causing a fluctuation in effective power with respect to an optical disk for testing, and sequentially changing the emitted power of the laser emitted from a laser source according to each change in the factor causing fluctuation;

a second step of obtaining an optimum emitted power by sequentially changing emitted power with respect to the optical disk to which data is recorded or from which data is reproduced, and acquiring as a compensation correction value the obtained optimum emitted power Pwo and an amount of change S1 in a factor causing fluctuation in effective power with respect to the optimum emitted power Pwo ; and

a third step of detecting an amount of change in a factor causing a fluctuation in effective power, at a time of recording or reproduction, and adjusting emitted power based the detected amount, the compensation data and the correction value , wherein:

when the optimum emitted power Pwo acquired as a compensation correction value is referred to as Pwo ,

an optimum emitted power P1 which is obtained based on the correction data and corresponds to the amount of change S1 in a factor causing fluctuation in effective power is referred to as P1, and

an optimum emitted power P2 which is obtained based on the correction data and corresponds to the amount of change S2 in a factor causing fluctuation detected from the detection means is referred to as P2, then

the control means adjusts the emitted power P at a time of recording or reproduction so as to be Pwo x P2/P1 .

18. Canceled, without prejudice.